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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
DAVIS, ZACHARY A	
ART UNIT	**PAPER NUMBER**
2137	

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/867,049	NYMAN ET AL.	
	Examiner	Art Unit	
	Zachary A. Davis	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 July 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14,25-31,35 and 37-54* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14,25-31,35 and 37-54* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. A response was received on 03 July 2006. By this response, Claims 1-14 and 25-31 have been amended. Claims 15-24 and 32-34 have been canceled. New Claims 38-54 have been added. Claims 1-14, 25-31, 35, and 37-54 are currently pending in the present application.

Response to Arguments

2. Applicant's arguments filed 03 July 2006 have been fully considered but they are not persuasive.

Claims 1-10, 13-22, 25-35, and 37 were rejected under 35 U.S.C. 103(a) as unpatentable over Heikkinen, International Patent Application Publication WO00/58920, in view of Turtiainen, US Patent 6430407. Claims 11, 12, 23, and 24 were rejected under 35 U.S.C. 103(a) as unpatentable over Heikkinen in view of Turtiainen and further in view of Lightman et al, US Patent 6711414.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Specifically, Applicant argues that the terminal equipment in Heikkinen is authenticated to a vending machine and not to a communication system (page 13 of the present response). However, as Applicant notes, the user of the terminal equipment can also be authenticated to a data transmission network (see for example, Heikkinen, page 7, lines 7-9, as cited by Applicant). The Examiner believes that a "data transmission network" is clearly a communication system, and therefore respectfully disagrees with Applicant's assertion.

Applicant further argues that the private key in Heikkinen is not received by the terminal equipment but is instead generated by the terminal equipment (page 13 of the present response). The Examiner first notes that Applicant has not provided a citation to support this assertion. The Examiner further notes that the "terminal equipment" in Heikkinen was considered to correspond to the claimed "mobile station", and not the claimed "client" as alleged by Applicant; rather, the "payment instrument unit" in Heikkinen was considered to correspond to the claimed "client". Thus, it would be the payment instrument unit that would receive the claimed "second secret" corresponding to the private key in Heikkinen. The Examiner notes that Applicant explicitly states that the private key is transmitted to (and therefore received at) the payment instrument unit in response to the challenge (see page 13, line 3, of the present response). Therefore, the Examiner believes that the combination of Heikkinen and Turtiainen does, in fact, disclose that the client receives the second secret. The Examiner notes that although Heikkinen does not explicitly disclose the payment instrument unit as a mobile client, this deficiency has been addressed in the rejection as set forth below, noting that

Turtiainen does disclose both a mobile station and a mobile client (see, for example, Turtiainen, Figure 2, where mobile station 1 and terminal or portable computer 16 are both mobile).

Applicant further argues that there is no motivation to modify the teachings of Heikkinin because the terminal equipment is authenticated to a vending machine (page 13 of the present response). First, the Examiner notes that the allegation that the terminal equipment is authenticated to a vending machine and not a communication system was addressed above. Second, the Examiner also notes that it does not appear to follow logically that there would be no motivation simply from the statement that the terminal equipment is authenticated to a vending machine. Further in response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation would be as was cited in the previous Office action, namely to free a user from the need to carry a separate authentication device or many different authentication devices (see column 5, lines 20-42). The Examiner further notes that this argument amounts to a mere allegation because the motivation was set forth in the previous Office action.

Therefore, for the reasons detailed above, the Examiner maintains the rejections as set forth below.

Claim Rejections - 35 USC § 112

3. The rejection of Claims 25-34 under 35 U.S.C. 112, second paragraph, as indefinite is withdrawn in light of the amendments to the claims and the cancellation of Claims 32-34.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-10, 13, 14, 25-31, 35, 37-47, and 50-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heikkinen, International Patent Application Publication WO00/58920, in view of Turtiainen, US Patent 6430407.

In reference to Claim 1, Heikkinen discloses a method for authenticating including receiving at a client from a mobile station request from a subscriber (page 6, lines 15-16; page 6, lines 23-26), sending the identity from the client to an authentication block of a network, receiving at the client a challenge from the

authentication block, sending the challenge to a subscriber identity module, receiving a response to the challenge at the client, and authenticating the client (page 7, lines 7-18, where authentication can be performed using a network, using a challenge and answer format). However, Heikkinen does not explicitly disclose that a mobile telecommunication network is separate from the communication system to which the authentication is being performed, nor that the client is mobile.

Turtiainen discloses a method for authenticating a mobile client to a communication system including receiving a subscriber identity from a mobile station (column 9, lines 29-37 and 45-49) where a mobile telecommunication network is separate from the communication system to which the mobile client is being authenticated (column 8, lines 1-7), sending the subscriber identity, receiving a challenge and a secret, and using a response to the challenge and the secret to authenticate the client (column 10, lines 22-39). Turtiainen further discloses the mobile client and mobile station communicating directly (column 10, lines 51-56). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Heikkinen to include the features taught by Turtiainen, in order to free a user from the need to carry a separate authentication device or many different authentication devices (see column 5, lines 20-42).

In reference to Claims 2, 3, and 8, Heikkinen and Turtiainen further disclose receiving a personal identification number or PIN (see Turtiainen, column 10, lines 26-30) and encrypting the PIN (Turtiainen, column 9, line 66-column 10, line 9).

In reference to Claims 4 and 5, Heikkinen and Turtiainen further disclose encrypting and transmitting the response (see Turtiainen, column 10, lines 6-9).

In reference to Claims 6 and 7, Heikkinen and Turtiainen further disclose that the transmissions and receptions are performed wirelessly (see Heikkinen, page 6, lines 23-31; see also Turtiainen, column 6, lines 18-25).

In reference to Claims 9 and 10, Heikkinen and Turtiainen further disclose that the wireless transmissions can use an infrared signal or a radio signal (see Heikkinen, page 6, lines 29-31; see also Turtiainen, column 10, lines 51-55).

In reference to Claim 25, Heikkinen discloses a method including retrieving a subscriber identity from a subscriber identity module in a mobile station (page 7, lines 4-6), wirelessly sending the subscriber identity from the mobile station to a client for authentication (page 7, lines 6-9; page 6, lines 23-26), wirelessly receiving at the mobile station a challenge from the client, generating a response to the challenge at the mobile station, and wirelessly sending the response from the mobile station to the client (page 7, lines 7-18, where authentication can be performed using a network, using a challenge and answer format). However, Heikkinen does not explicitly disclose a communication system distinct from the mobile telecommunication network, nor that the client is mobile.

Turtiainen discloses a method including retrieving and sending a subscriber identity (column 9, lines 29-37 and 45-49), receiving a challenge, and generating and sending a secret in response to the challenge (column 10, lines 22-39). Turtiainen further discloses the mobile client and mobile station communicating directly (column

10, lines 51-56) but that a mobile telecommunication network is distinct from the communication system to which the mobile client is being authenticated (column 8, lines 1-7). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Heikkinen to include the features taught by Turtiainen, in order to free a user from the need to carry a separate authentication device or many different authentication devices (see column 5, lines 20-42).

In reference to Claims 26, 27, 28, and 29, Heikkinen and Turtiainen further disclose receiving a request containing an encrypted PIN and confirming the PIN (see Turtiainen, column 9, line 66-column 10, line 9; and column 10, lines 22-39).

Claims 13, 14, 30, and 31 are apparatus claims corresponding substantially to the methods of Claims 1, 2, 25, and 26, respectively, and are rejected by a similar rationale.

Claim 35 is directed to software implementations of the method of Claim 7, and is rejected by a similar rationale. Similarly, Claim 37 is directed to a software implementation of the method of Claim 25, and is rejected by a similar rationale.

Claims 38-47 and 50-54 are apparatus claims corresponding substantially to the methods of Claims 1-10 and 25-29, respectively, and are rejected by a similar rationale. Claims 38, 39, 50, and 51 also correspond substantially to the apparatus of Claims 13, 14, 30, and 31, respectively.

6. Claims 11, 12, 48, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heikkinen in view of Turtiainen as applied to claims 8 and 45 above, and further in view of Lightman et al, US Patent 6711414.

In reference to Claims 11 and 12, Heikkinen and Turtiainen disclose everything as applied to Claim 8 above. Heikkinen and Turtiainen also disclose that the wireless transmissions can have any "suitable operational connection" (see Turtiainen, column 10, lines 53-54); however, Turtiainen does not explicitly disclose the use of a low power radio signal or an acoustic signal for the wireless transmissions.

Lightman discloses a wireless communication apparatus that can transmit wireless signals using an infrared signal, a Bluetooth (low power radio) signal, a radio frequency signal, or an acoustic signal (column 6, lines 36-53). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Heikkinen and Turtiainen to use a low power radio signal or acoustic signal for the wireless transmissions, in order to allow the wireless communication devices to easily transmit to and receive from other devices, and to allow the wireless devices to interact with other devices and their surroundings (see Lightman, column 3, lines 19-28).

Claims 48 and 49 are apparatus claims corresponding substantially to the methods of Claims 11 and 12, and are rejected by a similar rationale.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary A. Davis whose telephone number is (571) 272-3870. The examiner can normally be reached on weekdays 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ZAD
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